## Wrecks Discovered in Beirut Harbour



Lighthouse Geo has made a video using QPS Fledermaus interactive 4D geospatial processing and analysis software. The video portrays three wrecks and a part of the Beirut harbour structure, previously unknown and now charted for the first time. One of the surveys carried out involved a wreck survey. QINSy, used for data acquisition and online QC/QA, mapped a 80 m long wreck.

Initially the big wreck was recognised but there were some unclassified items of debris around the wreck. It was during the processing in Qimera that the two additional wrecks were discovered. Qimera, which has the core technologies of QINSy and Fledermaus joined together, proved again to be a highly valued addition to a hydrographic processing workflow.

## Discovery During Training

In March 2017, Lighthouse together with QPS organised a training session for the Lebanese Navy in cooperation with the Italian Navy as part of the International Support Group Lebanon (ISG) programme.

During the 2 weeks of training in Beirut, the focus was to set up a hydrographic workflow from data acquisition to the delivery of a reliable chart that is conform IHO standards. Theoretical parts and practical exercises with data simulation were mixed with on-water exercises on the Lebanese Navy survey vessel. Lighthouse, involved by the Italian Navy within the ISG programme, supplied all the equipment and provided the Lebanese Navy Operative Staff with a specific training course on the QPS software suite (QINSy, Qimera and Fledermaus) using NORBIT systems.

The data acquisition was carried out through a survey vessel equipped with a NORBIT dual head multibeam system WBMS and interfaced into QINSy. The NORBIT WBMS is a $200-700 \mathrm{kHz}, 1^{\circ} \times 1^{\circ}$ degree beam angle unit with a curved receive array and integrated AML SV probe. Positioning and motion data coming from an Advanced Navigation Spatial Dual FOG system was also interfaced to QINSy.


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[^0]:    https://www.hydro-international.com/content/article/wrecks-discovery-out-of-beirut-harbour

